SD11
A592
St

LIBRARY

MAR 11 1968

ROCKY MOUNTAIN STATION

STN PUB

TECHNICAL NOTES
of the
ALASKA FOREST RESEARCH CENTER
U. S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE

No. 36 JUNEAU, ALASKA

A Comparison Between Leader Growth of Western Conifers in Alaska and Vancouver Island

Buckland[1/] recently reported results on observations of leader growth of four western conifers[2/] at the Cowichan Lake Forest Experiment Station on Vancouver Island.

To see if the seasonal distribution of growth of western hemlock at Cowichan followed the pattern reported for Southeast Alaska[3/] a comparison was made between the results reported for the two regions (fig. 1). Leader growth of western redcedar at Cowichan was included in this comparison. All observations in both regions were made on sapling trees. Dates for commencement of growth at Cowichan may be subject to slight error since they are based on phenological records rather than direct observation of the experimental trees.

Results of the comparison indicate that there is very little variation in the periodic distribution of leader growth in western hemlock between the two regions following growth initiation in the spring. The growth pattern for western redcedar is interesting since no data are available for Alaska on this species. Buckland's results show that redcedar begins leader growth about the same time as western hemlock but has more rapid initial growth; about 50 percent of total growth was put on during the first four weeks. Leader growth of redcedar tapers off after the first four weeks and ceases at about the same time as western hemlock.

At Cowichan, Douglas-fir and grand fir ceased growth earlier and more abruptly than hemlock and redcedar. Sitka spruce, which like Douglas-fir and grand fir has a rigid leader, displayed this same growth characteristic in Alaska.

1/ Buckland, D. C.; 1956. Terminal growth of four western conifers for a single growing season. Forestry Chronicle Vol. 32(4):397-99.

2/ Western hemlock, western redcedar, Douglas-fir, and grand fir.

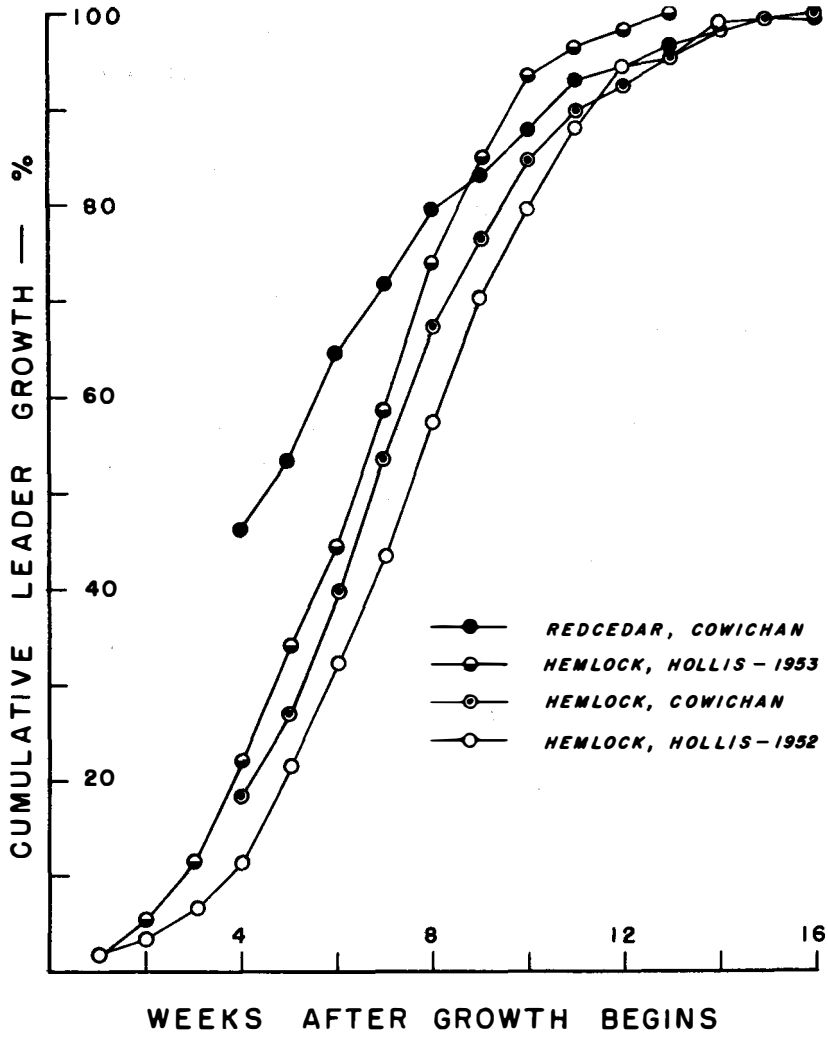
3/ Godman, R. M. and R. A. Gregory. Season distribution of radial and leader growth in Sitka spruce-western hemlock forests of Southeast Alaska. Jour. Forestry Vol. 53(11):827-33.

March 1957

R. A. Gregory

(over)

Fig. 1 SEASONAL DISTRIBUTION OF LEADER GROWTH



GPO 989404